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ABSTRACT

Discussion of licensing educational personnel has focused on three levels of criteria: 1) academic proficiency, 2) ability to perform skills and behaviors deemed essential to teaching, and 3) ability to produce changes in pupil behavior. The optimum criteria would be a mix of the first and second levels, since there are too many uncontrolled variables in measuring the effect of teaching on student behavior. These criteria should be applied by a teacher evaluation system independent of the training institution. The evaluation system would require a catalog of skills and behaviors to be developed under the supervision of a national commission including representatives of all interested groups. The licensing of specialized personnel should be the responsibility of the teaching profession through a system of extra legal "specialty boards." With financial support from the U.S. Office of Education and state departments of education, these boards would certify reading specialists, curriculum specialists, teacher training specialists, and so on. Initial entry-level certification by the state would be a prerequisite to certification by the board. This new type of certification will require reconstruction of teacher training at both preservice and inservice levels, which in turn will necessitate greater cooperation between the U.S. Office of Education, state departments of education, public schools, and universities. (RT)

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CERTIFICATION OF EDUCATIONAL PERSONNEL

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The licensing of teachers and other educational personnel is a subject which one discusses at the risk of embarrassment. The facts about existing practices vary from time to time and from state to state. While prospective policies and procedures rather than existing ones will claim our attention, we will nevertheless find it necessary to refer occasionally to present practices. In doing so, we shall be mindful of the fact that we are walking on treacherous ground and that our factual support may crumble at any point. Furthermore, it is not easy to bite off a piece of the subject. Our efforts to delimit the topic may turn out to be somewhat like Mrs. Holmes' evaluation of Henry James when she observed that James' trouble as an author was not that he bit off more than he could chaw, but that he chawed more than he bit off.

We shall try to lay out the meaning of competence and to indicate what must be done to establish and administer a competence-based program of licensing. After that we shall briefly explore what the role of the education profession should be in licensing and the sort of cooperation among State departments of education and other agencies needed to develop a competence-based system of teacher education.

MEANING OF COMPETENCE

We shall begin with the ordinary definition of competence; namely, sufficient ability, skill, or fitness to do the tasks one must do. If one has to do X, he is said to be competent if he has the knowledge and skills necessary to do X at a satisfactory level of performance. The question which any licensing authority faces is: What criteria should be used to decide that a candidate can do X? The question of criteria takes us to the heart of the problem of licensing educational personnel. Unless it is answered satisfactorily, little else is worth considering.

Perhaps the best way to answer the criterial question is to examine some of the criteria that have been proposed. They are as follows:¹

1. Academic proficiency.
2. Ability to perform skills and behaviors deemed essential to teaching.
3. Ability to produce changes in pupil behavior.

The first level criterion, that is, academic proficiency, is the lowest level currently in use. It consists in the rule that a candidate must meet a specified level of academic achievement. This level is typically a Bachelor's degree including specified courses. The evidence that the applicant has met this criterion consists of transcripts from accredited institutions, or testimony by an officer of the institution that the requirements have been satisfied. In some states, completion of a five year program or a Master's degree is specified for admission to the profession. In recent years, some states have specified that licensing

REASONS FOR

of college graduates is contingent upon approval of the program of training by the licensing authority. But whatever form the application of this criterion takes, in the final analysis it is the word of the university authorities that constitutes the evidence in support of the skills necessary to be a teacher. What criterion can perform any better as a result of his college preparation is never faced. It is assumed that academic work necessarily pays off in better teaching and consequently in greater pupil achievement. The dubious character of this assumption, together with public discontent, is prompting perhaps the best way to approach the third criterion is for the profession to take a new look at licensing policies and procedures.

The second level criterion has three aspects: first, it prescribes skills that a teacher must be able to perform; second, it requires that teachers be able to talk technically about teaching, and third, it specifies that a teacher exhibit appropriate affective behavior. This criterion abandons specific course requirements and academic hours of credit as the basis of certification, except for the candidate's subject matter field. We no longer ask what courses the candidate had or what grades he made, except in the discipline he is to teach. We now look for what he can do in the classroom, in interviews with parents, in working with his colleagues and in other activities normally carried on by teachers. For example, we want to know whether or not the teacher can reinforce and shape pupil behavior, whether he can probe pupil thinking or give clear explanations, whether he can define terms clearly or demonstrate procedures, whether he can sense the anxieties of a parent

and talk in ways that help the parent to understand or analyze in depth an educational question with his colleagues. We want to know whether he can and does talk about pupil conduct in such technical terms as self concept, ego involvement, frustration, regression, and need satisfaction rather than in common sense terms such as meanness, stubbornness, willfulness, and punishment. We want to know whether he can face difficult encounters with pupils, parents and colleagues objectively and rationally.

The third criterion - ability to produce changes in pupil behavior - is perhaps the most rigorous. It requires that the candidate's behavior produce an acceptable level of pupil learning under specified conditions, and over a specified time. The growth of pupils must be reflected not only in cognitive achievement, but also in affective development.

OPTIMUM CRITERIA

Which of these three criteria or combinations of them should be used to license teachers at the initial level? The first level criterion - academic proficiency - is acceptable only in the substantive part of the candidate's preparation. The weight to be assigned to this criterion is open to debate, but there can be no doubt that there should be evidence that the candidate has knowledge of what he is to teach. Perhaps this evidence can be gained from conventional academic records.

Of course, it can be said that if criterion three - pupil achievement - is applied, the use of this first level criterion is unnecessary. For

if a candidate can bring about the specified pupil outcomes, that result is itself *prima facie* evidence that the candidate possesses the appropriate substantive knowledge. But criterion three is not a sword that cuts both ways. If the candidate cannot produce the specified learnings, it will not be known whether his failure is to be attributed to lack of substantive knowledge or to faulty teaching skills. The feedback to the institution that prepared him will then be ambiguous. This fact alone is sufficient reason for retaining an independent source of evidence of academic proficiency. Proficiency changes in pupil behavior is despite the fact that academic achievement does contribute substantially to teaching; no record of proficiency in the disciplines, no matter how good, is evidence of competence in the skills and behaviors of teachers. This claim is borne out by the preponderance of research on this point during the last fifty years. Nevertheless, the role of subject-matter knowledge in teaching is not clearly understood, and the need for further research is urgent. Even so, the weight of research evidence has now shifted the burden of proof to the defenders of the belief that to become a teacher at any particular level, one need only possess substantive knowledge makes a competent teacher, even when supplemented academic proficiency - is acceptable proof in the substantiation of the conventional student teaching.

If we shift now to the highest level criterion - production of appropriate levels of pupil achievement, it appears at first hand that this criterion has already been met. It is not surprising, therefore, that it should be accepted without further ado. But the matter is not so simple as it appears. In the first place, this criterion demands more evidence than can be readily provided.² In the second place, it requires

more evidence than is demanded of any other type of professional - physician, lawyer, or what have you.

Turning to the first of these points - more evidence than can be provided - it must be noted that pupils come to a subject already in possession of some of its knowledge. The effect of the teacher's influence is the difference between what the pupils know and can do at the end of the period of instruction and what they knew and could do initially. We are assuming that the classroom is a closed system - that there are no outside influences. But, of course, this assumption is not true. So the gain in pupil achievement must be attenuated to compensate for external influences. This will entail complex technical problems of both context and time sampling. It will also require sampling of the candidate's teaching behavior over a long period of time, perhaps two or three years, to neutralize the random variation of both pupil and teacher behavior. The cost in time and energy to establish the competence of a single candidate by this criterion is too great for either a certifying authority or a training institution to bear.

Moreover, as already pointed out, the criterion is more rigorous than that applied to the licensing of other types of professional personnel such as lawyers and physicians. Medical doctors are not licensed because of their ability to cure a percentage of their patients, nor are lawyers licensed because they can guarantee justice for a certain proportion of their clients. They hold license to practice their arts because of evidence that they can follow the acceptable procedures of their respective

professions. A physician is not accountable for the death of his patient more evidently than is a member of any other form of profession if he has followed the procedures recognized as valid in the science developed. Likewise, so too, must the law and wisdom of medical practice. Neither is a lawyer accountable for the

beginning teacher fails at these points - more evidently than the loss of a case, provided his behavior has conformed to the procedures and provided - it must be noted that pupils come to a teacher with techniques of his profession. This is as it should be, for no one should possess control of areas of his knowledge. The effect of the teacher must be held accountable for an outcome unless he has control over all the factors that shape it. Neither lawyers nor physicians have such control, end of the period of instruction and what they know and can do. Teachers and teachers certainly do not. But a beginning teacher, like a beginner in any profession, is responsible for using appropriately the basic skills, outside influences. But, of course, this assumption is not true. Knowledge and wisdom current in his profession. If he does so, and yet the fact of pupil achievement must be ascertainable certification his pupils fails to achieve at specified levels, a license should not be refused him on that ground.

of both concern and some difficulty. It will also require application

The import of what has been said is that the first and second of candidate's teaching behavior over a long period of time, certain our three criteria - subject-matter knowledge, ability to perform the or three years to neuromotor and pedagogical control of pupils' skills, use the technical pedagogical language, and exhibit proper affective behavior - are the optimum ones for the initial certification of teachers. of a sample candidate by the examination of his lesson for sufficient The second of our optimum criteria - ability to perform skills and behaviors - finding evidence of a continuing improvement of behavior. This requires that the performance of a teacher be observed in the classroom

Notices, in already printed out the publication of three kinds and other situations. Such observation is necessary to ascertain whether candidate's behavior is the leadership function of the teacher or not the candidate can in fact perform the specified acts or behaviors. such as leader- and procedure. He should therefore have the right to observe. Such observation must be guided by uniform procedures and made by instruments which permit ready classification of teacher behavior.³

If we ask whether or not the performance of these skills and behaviors

will induce learning in pupils or facilitate interaction with parents,

colleagues, and pupils, we can answer the question in two ways. The first answer is that some skills have been tested out empirically in the classroom. For some of these, we can say that they are positively correlated with measures of pupil achievement. The number of teaching skills that have been so validated is about ten, according to one survey of the literature.⁴ But a more soft-nosed approach would probably add another ten or twelve to the list. Among these validated skills are those associated with clarity of presentation, variation of instructional devices and cognitive levels, business-like procedure and task orientation, structuring, and probing. Perhaps the behaviors that correlate positively and significantly with improved interpersonal relations is no larger. The second answer is that other skills and behaviors will be drawn from pedagogical wisdom and from theoretical formulations about how human beings interact and how pupils learn and consequently how they should be taught. The presumption is that these are more dependable than skills and behaviors that arise from sheer speculation. But ultimately, these too must be tested.

Considerable merit can be claimed for this criterion of competence, for it does have the advantage of focusing attention upon teacher performance rather than specified courses, hours of college credits and grades. Furthermore, as a body of empirically tested skills and behaviors is built up, teacher performance can and will become as secure and adequate a basis for teacher certification as we are likely to develop. Even now we can and should begin to use it.

school. To sum up, we are willing to settle for two criteria for initial certification - academic achievement and ability to perform skills and behaviors essential to teaching.

Let us now consider what can be done to correlate these two criteria with measures of pupil achievement. This number of teaching skills that have been

APPLICATION OF THE OPTIMUM CRITERIA

of the literature.⁵ But a more soft-nosed approach would probably be

Before the second of our two criteria can be used to license another teacher, three difficulties must be overcome. The first difficulty arises from the fact that there is no satisfactory list of basic teacher devices and cognitive levels, business-like dispositions, and social skills and behaviors. We do not know what skills and behaviors a structuring and ordering. Perhaps the function that correlates a particular candidate is to be held accountable for.

and significantly with important educational outcomes.

A few attempts have been made in the last half dozen years to

One attempt seems to have failed because it did not try to develop a catalogue of skills and behaviors, but we are far from having pedagogical knowledge and basic dispositions. Some attempts have made a satisfactory compilation. Some of the skills given in existing lists bearing upon teacher performance and accountability may well be read like New Year's resolutions and probably have little if any relationship to either pedagogical knowledge and wisdom or pupil achievement.

The second difficulty is due to the fact that we have no systematic

scheme for observing teacher behavior that is comprehensive enough to

Considerable merit can be claimed for the attempt to

cover a catalogue of basic skills and behaviors. We have a number of

instruments such as the OsCAR, the Flanders Grid, and the Provo Code,

which cannot claim scientific validity, but these are very limited in scope.⁵

The third difficulty is related to the fact that we have not decided who will collect the data on the performance of the candidate. The collection of data would be a costly operation a basis for certain qualifications and standards of performance for a licensing authority to undertake. Hence, certifying authorities are

likely to place this responsibility upon the training institutions as has

been done ever since the state and county examination system was abandoned. This is precisely what some certifying authorities are preparing to do.

This approach to the collection of data assumes that institutions of higher learning can be persuaded to develop competence-based programs and that once these programs are approved by the certifying authority, competence-based certification is established in fact. But this is the same old policy of taking the word of a university official that the criteria have been satisfied. It is axiomatic that training institutions cannot be persuaded to reform their programs by specifying criteria for certification as long as these same institutions are themselves allowed to decide whether or not their products meet the criteria.

If the movement to institute competence-based certification is to have any chance to succeed, the initial certification of a teacher must be based upon an evaluation made independently of the institution that gave the training. This means that each state must establish a system of individual teacher evaluation operated by professionals and based upon samples of skills and behaviors.

The system of evaluation must include instruments of observation, a catalogue of skills and behaviors from which to select samples, specified situations in which the candidate is to perform, and teams of trained observers. With modern technology it is not necessary that the observers be present when the candidate is performing. Video tapes of the candidate's performance are significant. In some respects they are more useful than direct observation. They can be played over and over again.

seen from the point of view of what is needed to provide the basis for analysis and evaluation. The question of who should provide the basis for analysis is not a simple one because the development of video tapes is one that the certifying authority should consider with great care.

The most difficult component to provide is the catalogue of skills and that once these criteria are established, the catalogue developed, and behaviors. What is required is not an exhaustive list, nor speculation competence-based certification is established in fact. But this is not about what skills are needed to reform the schools, not even a list of some old policy calling the word of a university official that the skills which an ideal teacher is supposed to possess. Rather competence-criteria have been suggested. It is axiomatic that training institutions based certification at the beginning level of teaching requires that we cannot be persuaded to reform their present by specifying criteria for have a list of crucial skills and behaviors which a teacher must have to certification or how to teach some disciplines are themselves able to perform reasonably well and to survive in the ordinary classroom with to decide in favor of the right process with the teacher's personal satisfaction.

If the purpose of inservice certification and certification is to have any chance to succeed, the catalogues developed should not for those who have romantic ideas of what teachers can and should do. must be based upon an established mode independent of the institution. Furthermore, there is no point in state after state developing its own basic skills and behaviors. This would lead to duplication of system of criteria for certification developed in different states effort without compensating quality. It would also render reciprocal certification difficult if not impossible.

The system of evaluation must include inservice certification which have little in common.

A catalogue of skills and behaviors from which to select and develop a plan to work out a catalogue of skills and behaviors. This plan calls for a national commission composed of representatives of the classroom, training institutions, basic disciplines, and state certifying authorities. This commission should function as a review board and not as a production committee. It would have the authority to approve or disapprove the

catalogue of skills and behaviors. The production task is one which demands the highest technical competence. The committee to do this task should be appointed by the national commission and should be subject to its policies. The commission should have ample financial support and plenty of time to do its work thoroughly. The catalogue of skills and behaviors thus prepared should become a basic document of certifying authorities and teacher training institutions. A candidate's performance would be judged by how well he performs a sample of behaviors and skills selected from the list.

The objection may be raised that such a list would frame the program of training institutions and lead them to reduce their programs to preparation for the particular skills and behaviors contained in the catalogue. Since the skills and behaviors would require preparation far superior to what these institutions are now doing, it is difficult to respect this objection. Put in positive terms, the catalogue would be based on a review of research literature and upon the judgement of our most competent people. If training institutions were to turn out beginning teachers of the quality called for by the catalogue, teacher education would be moved ahead by at least a quarter of a century.

The initial licensing gives the right to a candidate to practice. It certifies him as competent at a minimum level. To move up in the scale of competence, and consequently in the salary scale, is to secure further training. By additional training, the teacher can become a candidate for licensing as a career teacher. A set of skills and behaviors

appropriate to this higher level should be prepared by the national commission. A candidate for a career license should be certified according to his ability to perform sample skills and behaviors and by the same procedure as he was licensed in the first place.

LICENSING OF SUPPORT PERSONNEL

The school system requires many kinds of personnel to support the teachers in the exercise of their duties. Among these are administrators, instructional specialists, counselors, curriculum specialists, school psychologists, social workers, and research specialists. Their sole reason for being is to facilitate the work of the teacher. Some of these should be licensed by a state licensing authority and others should be certified by the teaching profession. The principle by which to decide which of these specialists should be licensed by the profession is not settled. But we propose that a candidate in any specialty which represents an extension of the teacher's work should be certified by the profession. Among the specialties satisfying this principle are instructional specialists - such as reading specialists, language specialists, and specialists in any field of instruction; curriculum specialists and supervisors. Administrators, social workers, and school psychologists, for example, would most likely not be covered by this criterion. Time does not permit us to consider the question of licensing these types of personnel.

appropriate to this kind of legal status in order to insure the effectiveness of the certification process. To perform its certifying responsibility the profession of teacher-teaching should establish a system of extra-legal certification consisting of specialty boards.⁶ These boards should be national in scope, and perhaps there should be one board for each specialty.

While these specialties must be identified with far more care

than I can exercise here, perhaps teachers who qualify would be

The school system requires many kinds of personnel to be certified as reading specialists, speech specialists, specialists teachers in the exercise of their duties. Among these are instructional in teaching the exceptional, curriculum specialists, teacher instructional specialists, guidance, counseling specialists, and training specialists and so on.

psychologists, social workers, and various specialists.

The composition of the specialty boards is a matter that reason for being is to facilitate the work of each board. In this will require extended consideration, but as a trial balloon should be launched by a specialist board, such as the one we suggest that each board consist of experts in the specialty certified by the teaching standards. The program should be at both the university and public school levels, relevant which of these specialists should be represented. There should be academic specialists, and relevant educationists. These boards should be the primary body responsible for certification, and would be responsible for establishing criteria for certification, as well as for developing standards for certification, deciding upon national policies, and working out procedures and among the specialists establishing rules relating to techniques for gathering and processing data on each candidate, failure - such as conduct, specialities, and finally deciding who should be certified. To perform these specialties in an efficient manner, the following tasks, each board will need extensive consultant services and supervision. Administration, social workers, psychologists, ample financial support. The United States Office of Education for example, will be able to provide some financial support in collaboration with State departments of education should does not permit this to be possible the State departments of education should finance these boards in their first phase of development. After that perhaps financial support should be derived primarily from fees paid by candidates for initial certification and

annual registration of license.

These boards would certify only the most highly competent members of the profession and then only in their specialty. The basic license as a career teacher, as we have already pointed out, would be given only by the state and would be prerequisite to certification by a specialty board. The criteria for certifying a candidate in a specialty would be extremely high. They would require, among other things, superior performance of the various teaching skills, superior ability to interpret, diagnose, and prescribe ways of dealing with problems of pupil learning, superior ability to discuss educational issues and policies, and superior ability to work with parents and other members of the community. The candidate would also be expected to have a healthy attitude toward himself and toward pupils and those with whom he works.

The justification of extra-legal certification of teachers is not far to seek. We are all too familiar with built-in automatic increments in salary schedules for experience and additional college work. These schedules are closed at the top so that when one has reached the maximum there is no further financial incentive for him to improve. The primary defect of this scheme, however, is not that it dulls incentive at the top. Rather it is the fact that it discourages some ambitious individuals from entering the system in the first place. Extra-legal certification can enable an individual to skip over part

of the years of automatic adjustment and enter into an upper level where there is no limit save the ability of the school system to pay and the competence of the individual specialist.

The objection may be raised that school systems will not pay the additional price for specialists. This may be an initial hurdle because boards of education and superintendents of schools would not readily see the advantage of highly trained specialists at the outset. But over a reasonable period of time the services of specialists would be so productive that the initial difficulties would be overcome.

Moreover, extra-legal certification would enable the profession to build up a national pool of highly competent personnel. The existence of this pool would be highly advertised and well known throughout the school systems of the nation. From this pool school systems can employ individuals to deal with special problems and special programs. The development of such a pool of highly specialized and competent professionals would be difficult, if not impossible, under a system of state certification. Under the existing system, it is difficult enough to establish reciprocity of certification to say nothing of creating a pool of highly competent individuals. Certification by a specialty board can make the specialist available nationally so that he can be employed in any system without the entanglements of state requirements.

COMPETENCE-BASED CERTIFICATION AND TEACHER TRAINING

Competence-based certification of teachers will require reconstruction of teacher training at both preservice and inservice levels. Teachers will not long tolerate a system in which the requirements for a license are markedly different from what the training program prepares them to do. At the present time, it is difficult, if not impossible, to find a systematic program of training in skills and behaviors. There are several institutions where there is talk about such a program, and a few have taken a step or two beyond the talking stage. Programs for inservice training are at about the same stage of development.

Three or four years ago the outlook for competence-based programs of training was promising because of the development of training techniques laboratories and micro-teaching. But these promising developments have fallen short of expectations. Why? The answer involves a complex of factors, but probably these all boil down to the fact that the agencies involved in teacher education - State departments of education, public schools, universities, and the Office of Education - are not united in a massive attack on the problem. As long as these agencies work independently, or at best cooperate mechanically, teacher training will suffer from piecemeal thinking and inadequate planning and development.

State departments of education traditionally have been agencies for inspecting, accrediting, licensing, and compiling statistical information. Because of understaffing they have tended until quite recently to soft-pedal their leadership role. Universities have isolated themselves from the public schools and state departments, content to prepare teachers as though they had the answer to our educational ills. The Office of Education has until recently been little more than a statistical bureau. The public schools have stood alone, isolated, and forced to bear the brunt of attacks by axe grinders and well-meaning citizens for defects arising largely from the failure of the universities, state departments, and the U.S. Office to shoulder their responsibilities. This separation and isolation of our institutions and agencies can continue only at the expense of all and perhaps the ultimate sacrifice of public schools.

The main instruments for the improvement of the public schools is teacher education and research. Improvement of the schools is not going to be brought about by trying one innovation after another. The history of education shows that few innovations have made a difference in the schools. Consider a list - object teaching, type studies, project methods, core curriculum, experience curriculum, thirty schools experiment, Winnetka plan, Dalton plan, the platoon system. Each of these had its day;

each was supported by big talk. But where are they now? They are in the history books, not the schools. The chances are that the same will be true of current innovations - the infant school, open classroom, store front school, or what have you.

The schools have improved in this century. Even a cursory comparison of what Rice found in the thirty school systems he studied in the 1890's with the same schools today will show marked improvement. The illiteracy of the nation has been reduced to one percent of the population over 14 years of age. That in itself is no mean achievement. How has it been brought about? There are many contributing factors: better economic conditions, improved communication, compulsory school attendance. But the main contributing factor is improvement in teacher education and in our pedagogical knowledge resulting from research studies. These studies have led to better instructional materials and techniques, better school financing through equalization funds, better means of diagnosing and evaluating pupil learning, to mention only a few.

Teacher training and research are the twin forces to move the schools forward. Better teachers and better knowledge - these are the things that count. We cannot have one without the other. Knowledge gives us the basis of teacher training and better trained teachers enable the researcher to advance our knowledge.

What is needed today is a two-fold movement. First, we need and must have a massive, cooperative drive to develop a systematic competence-based program of teacher training at both preservice and inservice levels. This drive must involve state departments, universities, public schools, and the U.S. Office planning together and working together to put the plans into operation and to sustain them while hard-nosed research tells us the outcomes. If the results do not satisfy our expectations, revise the plans by what we have learned and research them again. The way to better teacher education is not blindly trying one thing after another, but instead guiding our efforts by hard thinking and feedback that only research can give.

The second of our two fold movement is research itself. There has never been a time when the profession and public alike were demanding more hard knowledge about the schools than they are today. We are hearing more and more about accountability and this cry is apt to continue. It will continue because the public is shifting its view from a consumer conception of education to that of an investment. As a consumer of education the public could look on with equanimity if it thought it was not getting its money's worth. After all, there is the view that the buyer must himself beware. But the shift to the view that education is an investment is driving the public to ask what is the return

on its investment. The profession must be in a position to answer this question and to do it with hard knowledge.

The upshot of what has been said is that state departments of education and the United States Office of Education must team up with the universities and public schools to support a systematic program of teacher training. Unless this is done, competence-based licensing will come to nought, and efforts to improve the public schools and teacher training programs will continue to founder on romantic notions about education and teachers.

REFERENCES

1. Turner, Richard. "Levels of Criteria". Appendix A, The Power of Competency-Based Teacher Education, by Benjamin Rosner, et al. Committee on National Program Priorities in Teacher Education, Project No. 1-0475, Office of Education, U.S. Department of Health, Education and Welfare, 1971.
2. Ibid.
3. Ibid.
4. Rosenshine, Barak and Furst, Norma. "Research in Teacher Performance Criteria," in Research in Teacher Education, edited by B. Othanel Smith, Englewood Cliffs: Prentice-Hall, Inc., 1971, pp 37-72.

REFERENCES - continued

5. Gage, N.L. Handbook of Research on Teaching. Chicago: Rand McNally and Company, 1963, pp 247-328.
6. Rosner, Benjamin, et al. The Power of Competency-Based Teacher Education. Committee on National Priorities in Teacher Education, Project No. 1-0475, Office Of Education, U.S. Department of Health, Education, and Welfare, 1971. See also Appendix J. "Educational Specialty Boards", by Myron Lieberman.